vaaced by Kluge and Meyen, who have endeavoured to show that the encephaloid tumour possesses a vascular system of its own.

. It has been observed the fungus was mutilated during the examination; this account will, therefore, be regarded as a very imperfect contribution to the pathology of this deplorable disease.

ART. VIII.—*Occlusion and Rigidity of the Os Uteri and Vagina.* By JAMES D. TRASK, M. D., Whiteplains, Westchester Co., New York.

AMONG the causes of rupture of the womb, enumerated in our monograph on that subject, in the last two numbers of this Journal, obliteration and extreme rigidity of the os uteri and of the vagina, were alluded to as of occasional occurrence. In connection with that inquiry, we collected all the instances that were within reach, of labours in which these complications were met with. This subject has received but little attention from medical men, and few text books on obstetrics make any allusion to it as a source of difficult labour, or to the treatment of this class of cases. Among those authors who refer to it, a considerable difference of opinion exists, as to the proper course to be pursued when such complications are met with; some appear to discountenance any intervention by operative procedure, while others, of equal respectability, recommend an early resort to division by the knife, of the occluded or strictured parts.

Most of the cases of reputed occlusion of the os uteri, are regarded by Baudelocque, Velpeau, Dewees, and Denman, as instances of undetected malposition of the uterus, by which the cervix is thrown backward to the sacrum, or to the one or the other side of the pelvis, and beyond reach of the finger. That error from this source has, in some instances, induced the attendant to make an artificial opening into the womb, the os being patent, but inaccessible, there can be no doubt; inasmuch as well attested instances of it* are recorded by Baudelocque and others.

We have thought that a series of cases of complete and partial obliteration of the os uteri and of the vagina, might prove instructive; as showing the consequences of neglect, the advantage gained by judicious interference, and as affording assistance in determining on the right course to be pursued.

1. *Cases of Complete Occlusion of the Os Uteri.*

CASE I.—An Irish woman, stout built, ætat. 28. Two years before, she fell down stairs at the fourth month of her first pregnancy, and at once had

* Mr. North, in *Lond. Med. Gaz.*, vol. xx. p. 392.

flooding and pain, which lasted two days. Instruments were applied, and the patient delivered, during which she suffered great pain, and had dreadful flooding, fainting, and depression. A discharge of pus succeeded, and lasted until the second pregnancy.

The physician was called at noon. She had had strong pains since the preceding evening, but no show. The pains were urgent and powerful, forcing low down into the vagina, a dense, globular tumour, consisting of the head covered by the uterus. No os uteri could be felt, but where it should be, a firm hard point with three ridges diverging from it. Opiates were given, which almost entirely put a stop to the pains during the afternoon and night. Pains returned at 7 A. M., powerful, and rupture of the womb was feared. While the finger rested on the central part, something was suddenly felt to tear, and after two pains the finger was passed into the rent. This enlarged in the direction of the three cicatrices, and by 5 P. M., the opening was so large, that the membranes burst. The head did not advance for three hours; giddiness and headache came on; she was delivered by forceps of a full-sized, living child. She was well in ten days, with a slight purulent discharge, which left her in one week afterward.—*Dr. Wright*, from the *Montreal Med. Gaz.*, in *Lond. Med. Gaz.*, 1846, p. 688.

Case II.—Ætat. 40; good constitution; the mother of three children, the last having been born eight years before. Anteversion of the womb had been supposed to exist, and a pessary recommended.

At 6 A. M. she had been in labour thirty hours. No os uteri could be found with a probe or finger. The vagina was five inches in length, dry and swollen. The pains were regular and active. At 8 o'clock, A. M. in consultation, 4 P. M. was fixed for the performance of vaginal hysterotomy. The pains then not being very severe, it was deferred until 11 P. M. With a blunt pointed histoury, an incision was made, of half an inch in length, layer by layer, through the uterus in the line between the bladder and rectum, and four ounces of liquor amnii escaped. This was crossed at right angles by another. There was no pain, or hemorrhage in the operation, and in one hour the child was born alive.

After the lochia ceased, a bougie was introduced frequently for some time. The aperture is now small and irregular, without a *cervix*. The catamenia returned in six weeks.

During the early months of gestation, she frequently injected strong lye of ashes, and even into the cavity of the womb (?) by a gum catheter, and at each time felt intolerable pain and also observed suppuration and detachment of the skin.—*Dr. Caffe* of Paris, from *Journ. Hebdom.* in *Arch. Gén.* See *Ryan's Journ.*, vol. vi., p. 87.

Case III.—In the first labour, the head was impacted, and the vectis employed. In the second labour, the pains were active for twenty-four hours, and for four or five hours, excruciating. No os uteri was detected by the midwife. The os could now be felt, the size of a sixpence, and the space within the circle was extremely thin and tough, thinner than the surrounding uterus, hermetically sealing the womb. This membrane was divided with a gum-lancet, and in four pains the os was so dilated as to admit the head. The pains now became slight, ergot was given, and the vectis used. —*Mr. Tompkins*, *Lond. Lancet*, 1831–2, vol. i. p. 749.

Case IV.—Ætot. 36, first child. The waters had dribbled awoy; no orifice was discoverable. On the descent of the head covered by the uterus, a thin portion was felt. A female catheter was passed through this, and then tbe finger. It tore like o thin membrane, the os dilated, ond in an hour and a half, labour was terminated.—*Dr. Felix Hatin*, in *L'Experience*, Mai, 1839. See *Brit. and For. Rev.*, vol. ix. p. 263.

Case V.—Ætat. 23 or 24, Irish, first child. At 7 P. M. she had been in strong pains since the preceding evening, but there was no show; pains urgent and powerful, and no os to be perceived after several hours. At 2 P. M. a firm, globular mass was forced into the vagina by every pain, but there was no break in the surface. For several hours more, tbe pains were uousually severe; castor oil was given. Where the os should be, there was a minute point, somewhat thinner than the surrounding parts.

She had menstruated for fourteen years; discharge, pale and scanty; no catamenia since her marriage, nine months before. A copious reddish discharge took place three days before labour. The pulse was 120, 130, and very irritable; pains violent; skin irregularly hot and cold; features anxious. The point referred to was punctured, and an incision made toward the bladder, ond towords the rectum, of one and a half or two inches; the last incision was followed by a few drachms of dark blood. The incisions were not made *laterally*, for fear of wounding the arteries of the neck. Operation produced no suffering; pains abated a little, and returned. At 4 A. M. next doy, under a strong pain, the edge of the incision tore suddenly to the right side, and soon afterward, during an exomination, the other toward the left sacro-iliac junction, both without hemorrhage. She became faint; pulse 140, 150, nod stimulants were required. In two hours, powerful pains recorred, and the head was born at 11 A. M. The pains becoming inefficient, stimuli were given. The child was born alive, and the mother recovered. The vagina was very short after recovery. There was no cervix, but o puckered, irregular orifice, admitting the tip of the finger, with three cicatrices radiating from it. The left mamma had no nipple.—*Mr. Tweedie, Guy's Hospital Reports*, vol. ii. p. 258.—(*For a continuation of this, see Case XXII.*)

Case VI.—Three and a half years before, had twins; labour natural; but followed by puerperal fever,(?) from which she never entirely recovered. A putrid discharge continued for several months, and ofterward appeared in the place of catamenio for two and o half years, when the menses appeared, aad conception took place. The cervix had sloughed away, and the husband (o pbysician) now discovered that the os had become closed by an indurated membrane, which resembled o pig's bladder.

She was, as sbe supposed, three weeks beyond nine months, and had not felt the child for some time. There had been slight pains a few days before, which continued, but did oot increase. Next day, Dr. Blundell detected a tendency to a dimple at the side of the os, and introduced a small soond through it. Soon afterward, she had violent bearing down pains. At midnight, there had been some discharge, but no opening was perceptible. The polse wos very rapid, and a most profuse perspiration broke out. She was left, and seen again at 10 A. M., and was theo a little more collapsed. At noon, the os was found opeo, but the edges jagged, with a flap of tough, granular membrane, banging from the posterior margin. Collapse increasing; tbe hand was iotroduced, and the child delivered

by version. Slight hemorrhage followed the removal of the placenta, and she died in a half hour afterward. The child appeared to have been dead for some days.—*Mr. Waller*, reported by *Mr. Tweedie*, in *Guy's Hosp. Reports*, vol. iv. p. 120.

Case VII., VIII.—In both, the os was normally, exceedingly small, and the occlusion was produced by cellular membrane filling up the orifices. The lower part of the uterus was rendered tense and hard, so as, in one case, to resemble the bag of membranes. Case VIII. was fat and plethoric, and although bled four times, blood flowed from the mouth and nose at every pain, and she had been in labour eight days. Case VII. was in labour two days and nights. In both, the membrane was punctured by a female catheter—there was no laceration; delivery without assistance; children living.—From *Naegele's Thesis*. See *Ibid.*, p. 137.

Case IX.—Ætat. 35; second labour; pains were felt August 14; the next day no os could be discovered, by the midwife or a surgeon who was called in, though the uterus was forced low into the vagina. In the evening of the 16th the pains were less frequent and strong, and she was delirious at night. When seen on the morning of the 17th she was exhausted and worn out. The womb, stretched over the head and attenuated, was pushed almost to the mouth of the vagina, but no os was perceptible. The scalpel was then used for making an os. She was delivered of a dead child by forceps, and died in the evening at the end of nearly three days. —*Ibid.*

Cases X., XI.—The os in both closed by a membrane united to the margin of the aperture. In one, the finger was introduced; in the other, the point of a female catheter—instruments were used in neither—both children were alive, and both mothers recovered.—*Ibid.*

Case XII.—First pregnancy, during the whole of which she suffered from leucorrhœa. Labour commenced August 25th. There was no os, and on the 27th one was made by incision. Six hours afterward, she was delivered of a living child by forceps. Recovered well—the os retained the form of the incision—and the next labour was natural.—*Ibid.*

Case XIII.—Ætat. 42; first pregnancy. Labour began May 2d; no os could be found. On the 4th an os was made by incision, and in twenty-two hours was delivered by forceps.—*Ibid.*

Case XIV.—After miscarriage, extensive sloughing took place, embracing the os, leaving a contracted circle as a cicatrix. The head descended low, pushing the lower part of the uterus before it. After a considerable time, the strength being almost exhausted, a puncture was made by a bistoury, and an incision of considerable extent. The head was forced through, rending at right and left. Some alarming symptoms arose—the head was perforated and she was soon delivered. She recovered, and became pregnant again.—*Ibid.*, from *Dr. Gooch's Lectures*.

Case XV.—First pregnancy. No orifice could be discovered to the womb notwithstanding most careful examinations. The vulva was occupied by a solid body which distended it. A consultation failed in finding

any opening to the womb. Convinced that the mother and child were in great peril, they decided to make an opening at the place of the os uteri. It was on the point of suffering a rupture. There was already a rent, involving a part of the thickness of the walls. This was the spot selected. Labour terminated spontaneously, and after it no cervix or os could be discovered. After two months the opening closed itself by degrees, and no accident followed the operation.—*M. Lauverjat.* See *Dict. des Sci. Méd.*, vol. xxiii. p. 301.

Case XVI.—Had been in labour fifteen or sixteen hours. Although the head was in the cavity of the pelvis near the vulva, no os could be felt by the midwife. The pains were very rapid and violent; M. Gautier first supposed it an obliquity of the womb, but after very careful examination no os could be found. The depth of the vagina was an inch in front, and an inch and a half behind. Vaginal hysterotomy was performed, and delivery effected by the forceps. There was some hemorrhage, but she soon recovered.

At the end of six weeks, the womb was very near the vulva, the vagina not being over an inch and a half long behind. These adhesions appeared to have been caused by a displacement of the womb, following a violent effort to vomit, by which the orifice of the womb was carried backward and the fundus over the pubes. Inflammation followed, uniting the mouth of the womb to the posterior wall of the vagina.—*M. Gautier*, in *Journ. de Méd.* See *Dict. des Sci. Méd.*, vol. xxiii.

Case XVII.—M. Morlaune, of Metz, found the head enveloped in the womb, already engaged in the vulva. Notwithstanding most careful examinations, in all directions, no os could be discovered. He was satisfied that hysterotomy was the only resource, but did not dare to resort to it, because the woman was in the sixth day of an ataxic fever, and therefore had no hope of saving her.—*Journ. d'Accouch.*, vol. i. See *Dict. des Sci. Méd.*, vol. xxiii.

Case XVIII.—Ætat. 30 years. January 11th, at the seventh month, on examination, in place of the os was a transverse bridle, seemingly a cicatrix. Pains came on April 25th but produced no change in the neck. It was hoped that the os might become perceptible and open in the course of the labour, especially since a fluid like the liquor amnii tinged with meconium appeared. The 26th passed without any os appearing, though the pains were powerful and continuous and the head was engaged in the pelvis, pushing before it a corresponding portion of the womb. The entire hand was employed to explore the vagina to the *cul-de-sac*, and no opening found. After being forty-eight hours in labour, and the strength beginning to fail, a consultation determined to practice vaginal hysterotomy. This was performed fifty-six hours after the commencement of labour. Pains having ceased for many hours, the forceps were employed. Extraction was very difficult and the child dead. Recovery was favourable.

The incision had been made in the anterior wall with the *bistouri caché*. Eight days afterward the opening would scarcely admit a writing-quill. A sound was introduced but could not be borne. A small orifice remained, through which the menses escaped two months after delivery.—*MM. Lobstein, Flamant and Caillet.* See *Dict. des Sci. Méd.*, vol. xxiii.

Case XIX.—The patient, the mother of several children, was taken in labour December 18th, 1843, at 7 P. M., and was seen by Dr. Bedford next day at 7 P. M. Her pains were violent and she suffered intensely. There was obliteration of the os uteri. Dr. B. made a hi-lateral section of the uterus, and in ten minutes afterwards the patient was delivered of a living child. Both did well without one untoward symptom. The obliteration was caused by attempts to produce miscarriage with an instrument.—*Prof. G. S. Bedford*, in *New York Journ. of Med.*, March 1843.

Case XX.—Ætat. 36; first labour. Physician called at 5 A. M., November 6th. Pains were decided and regular, but no os uteri could be found on careful examination. At evening the pains had increased and become expulsive, but no os could be found by him or by Prof. V. Mott, who had been sent for. During the night, nothing but a globular, smooth, uniform surface could be felt. Was first seen by Dr. Bedford at 1 P. M., November 7th, after having been in more or less active labour for forty hours. There was no trace of an os. Dr. B. made a hi-lateral section of the cervix, with a probe-pointed bistoury, "to within a line or two of the peritoneal cavity," and the head was felt. The substance of the neck felt like cartilage. At 6 P. M., no increase of the opening; an incision was made in the posterior lip, and tart. emet. given. Nov. 8th, at 2 A. M., the incisions were enlarged, and two more made toward the ischiatic bones. At 11 A. M., opening somewhat enlarged and the parts hot. At 6 P. M., strength failed, pulse 140, the head at the brim, the opening of the womb not larger than a dollar, rigid and unyielding. Forceps were applied and, after great effort, the child was born alive. The mother suffered only from inability to pass water for two weeks. Mother and child both well three months afterward.—*Prof. Bedford, Amer. Journ. of the Med. Sciences*, April 1848.

Case XXI.—Contraction of the pelvis and cohesion of the sides of the os uteri, leaving no vestige of a passage—the result of inflammation and suppuration following previous delivery.

After a labour of two days the vagina was dilated, which afforded a view of the contracted os. An incision a half inch deep was made and the head touched. The parts were of cartilaginous hardness, not yielding to pains, and requiring several subsequent incisions. The opening not yielding sufficiently, perforation was resorted to. High fever followed, and she died in twenty-four hours.—See *Smellie's Works*, vol iii. p. 55.

We propose to inquire into the *causes, pathological condition, termination if left alone, different modes of interference, and results of interference in this class of cases.*

In two instances, the lesion could be traced to inflammation following previous severe instrumental labour; in another, to inflammation, after an ordinary labour; and, in another, to inflammation following a previous miscarriage. In one instance it was caused by inflammation succeeding a descent of the womb into the vagina, after severe vomiting. In two it was the result of attempts to procure abortion, and in one it appeared due to a congenital malformation; no cervix being discovered in a subsequent delivery, and the patient having but one mamma.

As to the actual condition of the diseased parts, we learn that in case I., there was a tense globular tumour forced into the vagina, consisting of the head, covered by the uterus. No os uteri could be felt, but in its place was a firm point with three ridges diverging from it.

In Case II. there was considerable thickness of tissue divided by the knife, before the cavity of the womb was reached. In Cases IX., XIII., XVII., XX., no os uteri was perceptible. Case XII. had suffered from leucorrhœa during pregnancy, and there was no os uteri until the knife was used—the one thus made retained the form of the incision. Case XIV. had had sloughing of the whole cervix, leaving "a contracted circle" as a cicatrix.

In Case XV. there was no os, but rupture had already taken place in some of the uterine fibres. In Case XVI. there had been anteversion of the womb, followed by inflammation producing adhesions of the vagina and cervix, so as to render the os impervious. In Case XVIII. there was a transverse bridle, seemingly a cicatrix. In Case XIX. there was obliteration of the os and an irregularity of surface where the os should have been. In Cases XX. and XXI. the parts felt like cartilage. In most of these instances the source of the obstructed condition of the mouth of the womb is obvious enough; adhesions having formed, as a consequence of previous inflammation, and the condition itself was recognized by the hardened, irregular lines of cicatrization radiating from a single point, or encircling the cervix.

In several other instances, however, there was a condition of things productive of similar consequences and yet of a somewhat different character. In Case III. the os uteri could be felt, of the size of a sixpence, and the space within the circle was extremely thin and tough, thinner than the surrounding womb, and yet the womb was hermetically sealed by it. In Case IV. no orifice was discoverable, but on descent of the head a thinner portion of the uterus was felt, through which a female catheter was passed, and then the finger, and delivery was soon completed. In Case V. there was a minute point, thinner than the surrounding parts, where the os should have been. In Case VI. the cervix had sloughed and the os became closed by a membrane resembling a pig's bladder. In Cases VII. and VIII. the occlusion was produced by cellular membrane filling up the orifice, and both yielded to the point of a female catheter. In Cases X., XI., the os was closed by a membrane united to the margin of the aperture, which was broken through in one case with the finger, and in the other by a female catheter.

The latter are examples of what Naegele has described as "conglutination of the os uteri," in a thesis devoted to that subject. The obstruction in these cases, though removed by a slight force applied directly to it by a blunt instrument, is, nevertheless, such as very seriously to retard labour. According to Naegele, this closure of the os is due to a false membrane, or filamentous tissue, possessing a moderate degree of resistance, which he con-

siders the result of unsuspected inflammation of the neck of the womb. Dr. Ashwell (*Guy's Hosp. Reps.*, vol. iv.), adopts this explanation, and in remarking upon it, says, "It is well known, that normally, this orifice is sometimes very small; at others, instead of a transverse chink—its most usual form—there is merely a diminutive circular aperture. In either of these conditions of the orifice, complete obliteration may be easily produced, by an amount of local inflammation following conception, which would not seriously interfere with the pregnancy or the health of the individual. It is important to bear in mind, that such closure may not be attended by any other disease of the parts, the adhesions may be firm and complete, but there may be no scirrhous induration, no distinct nodule of hard substance; the neck of the uterus will be forced down by the pains; and the sensation imparted to the finger, on examination, during labour, will be quite natural, excepting only that no aperture will be found."

The inflammatory origin of these slighter degrees of obstruction of the os uteri is not allowed by some. Thus, Jacquemier, tom. ii. p. 181, asks, "Is this a veritable agglutination? Is this pretended plastic tissue anything more than a portion of exuberant membrana decidua? Do not these cases belong rather to some of those conditions of the cervix which render dilatation very difficult?"

The strength of the adventitious substance here deposited, varies, as we have seen, from that of cellular tissue, easily broken down, to that of a firmer consistence, requiring, as in Case III., a cutting instrument for its division. The history of Case VI. clearly points out the inflammatory origin of the obstructing membrane; so also in Case III., there had been difficulty in a previous delivery, and the membrane occluding the mouth of the womb was exceedingly thin and tough, hermetically sealing it. In both these instances, it is evident that the obliteration of the os must have taken place subsequent to impregnation. In both, it would appear that the inflammation of the cervix continued for some time after delivery; long enough for conception to have taken place; and that it finally terminated in the production of the false membrane. In Case V., there was probably a congenital defect in the structure of the cervix, as well as previous inflammation. The previous history of the remaining cases of conglutination of the os, throws no light on its origin in them. The degree of firmness which the membrane possesses, taken in connection with its origin in Cases III. and VI., renders it highly probable, that, as Dr. Ashwell suggests, it is due to inflammation occurring after conception, which does not render itself manifest by any distinct symptoms.

The *diagnosis* of obliteration of the os uteri is sometimes a matter of difficulty. As we have remarked, many practitioners of experience are disposed to deny the probability of its existence, and to attribute reputed cases to anteversion, while others, of equal experience, have more frequently met with instances of obliteration. Dr. Ashwell, in the paper

above quoted, says, "he never has met with any seriously protracted labours from obliquity," and yet, indisputable instances of it have been met with, in which it was productive of imminent hazard. Great embarrassment will, at any rate, be felt by the inexperienced, when obliquity exists in any considerable degree.

On failure to reach the os uteri in a vaginal examination, the probability of some form of obliquity of the womb would naturally present itself to the practitioner. Bearing in mind the different positions which the uterus might assume, he would carefully explore the whole pelvic cavity, if by chance, the os might be found in contact with the promontory of the sacrum, or one of the sides of the pelvis. Under the influence of uterine contraction, the head is forced into the hollow of the pelvis, forming a hard, tense, globular tumour, on the surface of which, any opening, did it exist, could be detected by the finger. If there have been considerable disorganization, the place where the os should be, is recognized by an indurated cicatrix, or if there be simple agglutination of the os, there will be a dimple or depression below the surface of the surrounding parts, indicating the situation of the uterine mouth.

Our cases, with a single exception, afford no illustration of the result, *when the patient is abandoned to the efforts of nature.* In Case XVII., the woman was allowed to remain undelivered, because sick with fever, of which alone she might have died. Case VI., however, is a valuable commentary on the practice of leaving such cases until the powers of the system are exhausted. In this instance, the unfortunate patient lingered along from day to day, and sank into a state of collapse from delay in affording her proper assistance.

When the os is obliterated, it is evident that the case must terminate either in rupture of the body of the womb, and escape of the fœtus into the peritoneal cavity, or in laceration of the morbid adhesions, after long continued pains, labour being completed with or without artificial aid, as in Cases I. and XV.,—or in exhaustion and death of the patient undelivered, as in Case VI. It is evident that these cases require careful watching and judicious management, and it becomes us to inquire as to *the proper time for interference, and the most suitable means to be adopted.*

Satisfied that obliteration of the os exists, our course will be determined very much by the character and degree of the morbid alterations. In cases of obstruction arising from the deposit of a thin filamentous or cellular tissue, Naegele recommends that it should be broken down by the introduction of a blunt instrument, as a female catheter, or by the finger. This, in Cases IV., VII., VIII., X., XI., was easily effected. The membrane occluding the os, although much thinner than the surrounding parts, is nevertheless, sometimes sufficiently firm to resist most powerful contractions, and to require division by a cutting instrument. In Case III., though the pains had been active for twenty-four hours, for four or five hours

excruciating, no advance had been made in labour, till the membrane was divided by a gum lancet, and then delivery was soon accomplished. In Case VI., the membrane was perforated, but a sufficient degree of dilatation did not take place to allow of version, until she was exhausted by protracted suffering.

Since, then, this membrane must be torn before the head can emerge from the womb, we know of nothing to be gained by waiting to see, if perchance nature will accomplish the laceration; and why ought we not, as soon as the expulsive pains have clearly revealed this obstruction, to destroy it artificially by such means as may be indicated? We see nothing to be gained by delay, or by preparatory venesections, &c.

If the existence of a comparatively thin, delicate false membrane, can cause serious delay to the parturient effort, how much more distinctly is artificial interference demanded, when the sides of the os uteri have become adherent from severe inflammation, and when no vestige of the natural structure remains; when, instead of a cellular tissue that may be torn by the finger, or a sound, we have a firmly organized adventitious deposit of perhaps cartilaginous hardness. There can be no doubt, that in such cases, an incision should be made into the womb, at the seat of the obliterated os. On this point, it is to be supposed, all intelligent persons would agree, and its propriety is placed beyond doubt, by the cases we have related. The question that would cause most embarrassment, would be as to the proper time for interference. Why should not the operation be performed so soon as we have satisfactory evidence that such obliteration exists? Are the risks attending the operation so great as the risks attending delay? Have we any encouragement to wait for the employment of venesection, diaphoretics, nausents, and fomentations?

The reply afforded by the cases cited, to these inquiries, is distinctly, that nothing is gained by delay, but much perilled by resorting to a palliative course of treatment; and that the chances of safety to mother and child, are much enhanced by an early resort to the vaginal section, before the patient's strength has been exhausted by protracted suffering. In Cases II., V., XII., XIX., XX., the lives of both mother and child were saved. In Cases XV. and XVI., the mothers recovered. In Cases XIV. and XVII., the mothers recovered, the children being dead. Cases IX. and XXI. were the only instances in which death occurred after vaginal hysterotomy. In one of these it was delayed until after the patient had sunk into a state of extreme prostration, and in the other until after a great many hours had elapsed. True, in some of the successful cases, symptoms of exhaustion had begun to manifest themselves, but the important lesson taught us is, that in almost every instance of occlusion of the womb, when let alone, nature proves incompetent to complete delivery; and that an artificial opening must be created. In Case I., she succeeded in lacerating the adhesions which had agglutinated the sides of the os, but she

could go no farther, and the uterus being fatigued out, the fœtus required to be removed by the forceps. A resort to depletory measures has usually been advised, previous to the operation; but the case is widely different from that of a rigid, yet patent undilated os. Furthermore, since laceration of the parts must take place in order to delivery, incisions should, in all such cases be preferred, since it may "perhaps be fairly assumed that the risk of unlimited laceration of the uterus and adjacent parts is much less, when incisions of tolerable extent have been discreetly made, than where merely a diminutive central aperture has been formed." (*Ashwell.*)

To Prof. Bedford of the University of New York, is, we believe, due the credit of having first performed the operation of vaginal hysterotomy, in this country, for entire occlusion of the os uteri. In both instances, he had the gratification of saving the lives of both mother and child.

The operation is usually performed with a bistoury or scalpel, taking the finger as a guide. In Case II., the incision was crucial. In Case V., it was made in a line between the bladder and rectum, to avoid the arteries of the side of the neck. In Cases XIX., XX., it was bi-lateral. In Case II., it stated that there was no hemorrhage or pain; in Case V., there was no "suffering."

II. *Cases of Partial Closure of the Os Uteri.*

Case XXII. (A continuation of Case V.)—In her second confinement was taken in strong labour early in the morning of January 2d. The pains were most powerful, and by noon there was an opening into the uterus, through which the head could be felt, which had not dilated. Half a drachm of laudanum was given without effect. At 2, P. M., the opening was irregular, rather less than a penny in area, and bounded anteriorly by a strong, firm, unyielding, rigid edge—the cicatrix of former incision, upon which the head was forcibly impelled. There was no trace of cervix. At 6 P. M., no dilatation, pulse quick, skin hot, vagina becoming hot and dry. The stricture was divided, with almost no hemorrhage, and without pain. Pains lulled and she was faint; brandy and water was given her. In three-fourths of an hour there was an additional rent, and delivery soon took place. Child asphyxiated, but restored. Recovered in three weeks.—*Mr. Tweedie, Guy's Hosp. Reps.*, vol. iv. p. 119.

Case XXIII.—Ætat. 31. Had extremely rigid os which, after waiting twenty-six hours, was dilated by the finger—which process required two hours. She died of peritonitis, and the whole cervix, the lower part of the body of the uterus, with the vagina, were gangrenous.—*Dr. Ashwell, Ibid.*, p. 141.

Case XXIV.—First labour—eighth month. The os was about the size of a half-crown, but rigid and very thin. After continued efforts at dilatation the os was snipped; the parts gave way—there was much flooding, and she died on the fourth day.—*Smellie's Works*, vol. iii. p. 55.

Case XXV.—Repeated and powerful attempts were made to dilate the os, and flooding and fainting were the result. Another attempt was then

made, the os feeling as if it were two inches thick. She died in convulsions, undelivered.—*Ibid.*

Case XXVI.—A healthy country-woman, ætat. 35. A very small orifice was found, from which there issued a brown mucous fluid. Various attempts were made at dilatation and delivery. After two days of protracted suffering, she died undelivered, with ruptured womb.—*Guy's Hosp. Reps.*, vol. iv. p. 143, from *Naegèle's Thesis.*

Case XXVII.—First pregnancy—strong and robust—ætat. 28. Labour began on the 24th, when the membranes broke. On the 27th the os was hard and callous. Vapour baths and opiate ointments were employed until the 28th, when an incision of one and a half inches was made in the anterior lip. Delivery was completed by the forceps, during which the os was not torn any farther. The child was dead. She had a favourable recovery. —*Dr. Burdach, Medicinische Zeitung*, 1837. See *Brit. and For. Rev.*, vol. vi. p. 235.

Case XXVIII.—A young girl. On the 6th pains came on and lasted all day; the membranes burst in the evening. The cervix was then thick and rigid, and the os equalled two centimetres. Next morning it was discovered to be a face presentation. At 1½ o'clock, P. M., the labour had not advanced. The patient was exhausted, and the os was incised on the right side, which produced slight relaxation. An incision on the left side was followed by copious hemorrhage. Forceps were tried, and also the lever, and failed. It was necessary to plug the vagina. At the end of half an hour the plug was removed, the os was dilated, and the labour was finished by the forceps. She recovered soon. The placenta was supposed to be partly over the cervix.—*M. Labordie*, in the *Practice of M. Dubois, Encyclograph. Méd.*, April 1846. See *N. Y. Journ. Med.*, &c., 1846.

Case XXIX.—M. Caignon was called at 11 P. M. She was suffering from pains from fever, and was much exhausted. A tumour was felt posterior to the vagina, which was supposed to be the head. The os was partially dilated, and discharging decidua and fetid blood, and was turned toward the pubis. There were symptoms of severe peritonitis. Venesection, &c. were practiced. Next day, vaginal hysterotomy was proposed. *Two days* afterward an incision was made, to expose the fœtal head. The cyst contracted and a pain came on—a living fœtus was extracted—there was no hemorrhage. Died next day from exhaustion.

Post-mortem.—Left ovary softened and adherent to the cyst, and this was adherent to the uterus.—*Arch. Gén.*, Oct. 1830, from *N. Amer. Med. and Surg. Journ.*, vol. ix.

Case XXX.—Ætat. 36; extremely emaciated and debilitated. Hemorrhage and very fetid discharges from the vagina, from the fifth month. Movements of the fœtus were very painful whenever it struck the parts within the pelvis. The os was two inches in diameter, and at least one inch thick. The pains were very violent—venesection—natural birth.—*Phil. Med. and Phys. Journ.*, vol. i. p. 386, *Dr. Sharpless.*

Case XXXI.—Ætat. 40 years. Had strong convulsions at the time of *accouchement*, which lasted two days. She was alarmingly prostrated

The os was of the size of a piece of six livres, and could not be dilated. Hysterotomy was the only resource. Hardly had the incision been made before delivery took place spontaneously, and though apparently on the point of expiring, she rallied and recovered. The child was dead.—*Dubosc of Toulouse:* see *Dict. des Sci. Méd.*, vol. xxiii. p. 297.

Cases XXXII., XXXIII.—Ætat. 26 or 27. She had been subjected to an operation at the age of 19, for artificial vagina, and just previous to marrirge, five years before, the os was pateat, yet small, admitting the end of the finger but totally unlike a natural os. During parturition this did not dilate, and was therefore incised in four directions; the head was perforated, aad labour terminated without laceration—recovery was difficult and protracted. In a second labour, a year and a half after this, the os was again too small. It was again incised, and the head delivered by the forceps—the child was born alive. In neither labour did the os equal a sixpence in size, and in both the uterus was forced down external to the vulva so as to be in sight. She had three *natural* labours afterward.—*Mr. Butler*, by *Dr. Ashwell, Lond. Med. Gaz.*, vol. xx. p. 589.

Case XXXIV.—See Case XCVI. of our series in the January number of this journal. The fœtus was forced through the posterior part of the uterus into the rectum and expelled from the anus. The os was a firm cartilaginous ring. She recovered.

Cases XXXV., XXXVI., XXXVII., XXXVIII.—See Cases CVI., CVII., CVIIII., CIX., of same series. The cervix was wholly or in part torn off by the violence of the pains. All recovered.

Case XXXIX.—See Case CCVIII. of same series. Neck almost scirrhous—rent at posterior and lateral part of the womb. Died soon.

Case XL.—See case CCLVIII. of same series. The whole os uteri burst off. Died in eleven days.

Case XLI.—Large and fleshy; third labour; two previous labours very severe. When in labour one and a half hours, the os was quite near the vulva, with thin edges, about the size of a dollar, perfectly unyielding, and apparently a cicatrix anteriorly, extending upwards and outwards. 1 gr. of tart. emet. was given and repeated twice at intervals of fifteen minutes, produciag only nausea. She had already flowed considerably. When in labour about two hours and a quarter, the head, covered by the uterus, was forced through the outlet and pressed upon the vulva, so as to be distinctly visible. There was imminent risk of laceration. The posterior part was incised to the depth of an eighth of an inch. The wound instantly enlarged itself, and in about three-fourths of an hour the child was born alive. She recovered.—*Dr. Buckminster, Am. Journ. Med. Sci.*, Oct. 1847.

The *causes* of *partial*, like those of *complete* closure of the os uteri, are, inflammation from injuries received duriag previous deliveries or from other mechanical causes, aad also organic disease.

Rigidity of the *os* is met with in every degree, from the not uncommon rigidity associated with firm fibre, to that depending on alteration of struc-

ture. It is not our purpose now to discuss the subject of ordinary rigidity of the os uteri. Ample directions for our conduct are found in most of the text books on midwifery, and it is but rarely that a case is met with that does not yield to the combined effects of venesection, tartar emetic and opium. Our object is to consider the proper treatment of cases which do not yield to these measures; whether the rigidity be due to a seeming indisposition in the structures to dilate, or to morbid changes, the result of inflammation, or to malignant disease of the cervix.

There may be no indication of organic change, and yet the os surrounded by a substance entirely undilatable. Thus in one of F. Ramsbotham's cases in a second labour—the first having been entirely favourable—the pains were exceedingly violent, and after a labour of fifty hours, the os equalled only a shilling in size. At this time, during a careful examination by the finger, the os was rent and she died on the fourth day of inflammation of the womb. When we have met with a case of obstinate rigidity of the os uteri, which has not yielded to a judicious trial of the agents ordinarily employed, what course is to be pursued? We have but three to choose from, viz: abandonment to nature, artificial dilatation, and incision.

The results of an *abandonment to nature* are the same as when the os is completely obliterated. In patients XXVI. and XXXIX. the patients died undelivered, from rupture of the womb. In Case XXXIV. there was laceration of the posterior wall of the womb, and of the rectum, and expulsion of the fœtus per anum. In cases XXXV., XXXVI., XXXVII., XXXVIII., the cervix was wholly or in part torn off—the patients recovering. In case XL. the whole os was torn off and the patient died. F. Ramsbotham relates a case in which the os uteri had entirely sloughed off, in consequence of the strong pressure to which it had been exposed for a great length of time.

Cases XXIII., XXIV., XXV., XXVI., afford no encouragement for the trial of artificial dilatation. Its adoption in each of these led to disastrous results, and so far as we are acquainted, the whole weight of obstetrical authority is against a resort to it. Our only resource, then, is a section of the rigid os.

To determine the proper time for the performance of this operation is probably more difficult than when complete obliteration of the os exists. In the latter case, the knowledge that an opening must be made by nature or art, and the conviction that art can make one with more discretion as regards the time, place and extent, will induce one to resort to it early and avoid the risks attendant upon delay. But in obstinate rigidity of the os, especially when unaccompanied by any distinct organic lesion, it may be more difficult to determine the proper time for interference. The duration and character of the labour, condition of the patient, both local and general, must all be considered: hence the responsibility of each case must in an eminent degree rest with the attendant.

We shall see by Cases XXII., XXVII., XXVIII., XXXI., XXXII., XXXIII., XLI., that the operation, when resorted to in season, is attended by the most favourable results. The incision, so far from leading to more extensive and dangerous lacerations, under the continuance of pains, in none of these instances encroached on the peritoneal cavity; and being made in the most favourable directions, lead to no injury of the adjacent organs. The operation was, in the instances in which this point is alluded to, almost free from pain and loss of blood. In the only fatal instance we have found, the operation was resorted to *three days* after the patient was found "suffering from pains and fever and much exhausted." In some of the successful cases, the operation was deferred until symptoms of exhaustion began to manifest themselves, but they nevertheless rallied.

Bearing in mind the danger incurred by the patient, of rupture of the body of the womb, of unlimited laceration of the cervix, and, it may be of sloughing, that may follow long-continued pressure; and, considering that the risk attendant upon judicious incisions is very little, are we not encouraged to an early, rather than a deferred, resort to a section of the neck? In the measures usually adopted there is often no inconsiderable risk. Blood-letting, to produce any effect must be liberal, and we know that many constitutions do not well bear the loss of blood. Where the patient is robust, and the fibre firm, general depletion and nauseants, by producing relaxation of the general system may diminish local rigidity. But in the delicate and anæmic, venesection to any considerable extent could not be borne, and in such, a division of the parts must be made at an early period.

We think it may be fairly questioned, whether, after a moderate blood-letting and the use of tartar emetic, in case the rigidity does not yield, and any structural lesion can be detected, we ought to wait until symptoms of approaching exhaustion appear. Should not the occurrence of local heat and dryness, or of constitutional sympathy, be a signal for extending help? In Case XL. the woman had been in labour less than three hours, the vagina, &c., but a little while before, at least, were perfectly moist and distensible, and yet the incision was undoubtedly made at just the right time.

Since a spontaneous laceration of the rigid parts is the best that can be expected after a judicious use of relaxant measures has failed, what is to be gained by waiting until the patient is in a state of hopeless prostration before the knife is used? Our cases are too few to furnish statistics, of authority on this point, but they decidedly favour an early resort to division. There is a chance of safe delivery if left alone; but this chance is so much less than that after an early incision, that we would not feel justified in waiting long after a prudent trial of relaxants.

When obstruction of the os arises from malignant disease, it would appear that a resort to division is justifiable, earlier than in the cases we have been considering. Laceration is almost certain to take place, unless

aa incision be made, and much suffering endured, whea the greater portion of the circumference is implicated, or the disease far advanced. It would be iateresting to learn the influence of an incision on the subsequeat progress of the disease, when the operation is performed on it in its early stages. Whatever it may be, an incision will, in almost every iastance, be necessary to secure the life of the child, and probably of the mother.

In the proceedings of the *Royal Med. and Chirurg. Society*, J. M. Arnott, Esq. reports a case in which the morbid growth occupied the anterior lip and right side of the womb, and equalled a large green walnut in size. The diseased mass and contracted os uteri were forced down almost into view, when a pain came on; hooks were fixed in the tumour, which was excised by a successioa of strokes with curved scissors, and scarce any blood lost. The os immediately dilated, and in a quarter of an hour a living child was born. The mother recovered, and was well for several months. She died sixteen months after confinement, of the disease.—See *Lond. Med. Gaz.*, Dec. 1847, p. 1068.

According to Jacquemier, tom. ii. p. 176, of twenty-seven cases collected by M. Puchelt, five died during labour, nine a short time after confinement, tea recovered from confinement, and of the rest the result is unkaowa. Fifteen of the children were dead aad tea living.

III. *Cases of Occlusion and Contraction of the Vagina.*

Case XLII.—This patient had laceration of the bladder and vagina in severe labour, and in consequence, almost complete obliteration of the vagina. Eight years afterward, it presented in labour, a firm cicatrix, two inches from the orifice of the vagina, with a small perforation leading to the womh, the vagina beyond heing perfectly healthy. After soaie delay, the stricture was divided in several places—the head descended—the pelvis being small, the head was perforated. During delivery the bladder and vagiaa were rent again, hut healed afterward.—*Prof. McNaughten, N. York Med. and Phys. Journ.*, No. xxiv., 1827.

Case XLIII.—The vagina was completely obliterated—four fingers breadth. An incisioa was made in its course, following a fistulous passage from the vulva to the uterus. The urethra was wantiag—the child was expelled.—*Lond. Lancet*, 1827–8, vol. i. p. 385, from *Arch. Gén.*, Oct. 1827.

Case XLIV.—Called to a primipara, in labour from one eveaing to the next. The head was far down, resisted hy a thick vertical septum ranning from the recto-vaginal to the urethro-vaginal septum, around which the finger could be passed in and hrought out. Ergot was givea. The septum formed a hand over the head, grew thinaer, and snapped like a whip. —*Lond. and Edin. Monthly*, 1844, p. 801, from *L'Expérience*, April 1844.

Case XLV.—Robust, ætat. 26; second labour. There was complete obstructioa of the vagiaa a little above the mouth of the urethra, hy a dense, striated membrane; the striæ radiating from the centre, as tense

cords. An orifice admitted a common probe. The pains were expulsive for several hours. At noon, a crucial incision was made through the membrane, which was thick, and tough, like tendon. At night, the head pressing on the perineum, and the soft parts being unyielding, the forceps were tried, and failed. Perforation was required; the head and shoulders offered great resistance; child unusually large: had a favourable recovery. She had been much injured in a previous labour.—*M. Davizac*, in *N. Orleans Med. Journ.*, March, 1845, p. 431.

Case XLVI.—Third child. A membranous septum existed, across the vagina. In its centre was a small aperture admitting a small probe, through which the liquor amnii was discharged. This membrane was divided, and the patient safely delivered. The previous labour had been tedious.—*Dr. Richardson, Transylvania Journ. Med.*, 1829, in *Amer. Journ. Med. Sci.*, vol. iv.

Case XLVII.—Mother of four. She had injected sulphuric acid into the vagina, to procure abortion. Severe inflammation followed, and obliteration of the upper two-thirds of the vagina. She went to the full time. After thirty-six hours' labour, an unsuccessful attempt was made to open a passage by the knife, and she died. The womb was rent for four or five inches on the left side. *M. Lombard, Rev. Méd.*, April, 1831. See *Amer. Journ. Med. Sci.*, vol. iv.

Case XLVIII.—Ætat. 23. Her previous labour was severe. A stricture was now observed two and a-half inches within the vagina, and completely encircling it. It could be dilated to the size of a dollar; pains regular; ergot was given, and they became very violent; was bled largely to no purpose. The stricture was divided upwards and outwards; a dose of morphine given, and she rested during the night. Ergot was given in the morning, and she was delivered after a few hours of severe labour. Subsequently had loss of control of the bladder and bowels.—*Dr. Williams, Amer. Journ. Med. Sci.*, vol. xi.

Case XLIX.—Ætat. 27. Had a very difficult labour two years before, followed by inflammation, and by closure of the vagina, which admitted only a goose quill. During labour, this membrane opposed the progress of the head. After six hours, the margin was divided for an inch on the left side, and at the end of an hour, one on the right side. The waters were black and offensive. She became faint, and the pains infrequent. She was safely delivered by forceps, of a living child. In her recovery, care was taken to prevent the formation of new adhesions.—*Dr. Hoillermein, Amer. Journ. Med. Sci.*, vol. xv. p. 407.

Case L.—A contraction of the vagina, in consequence of a violent labour, which scarcely admitted the point of the finger, it being a thick, indurated cicatrix, and a callosity of the perineum that prevented her sitting down. After the first stage of labour, forty ounces of blood were taken, and she was safely delivered.—*Dr. Hamilton's Pract. Observations, Appendix.*

Case LI.—Had a violent labour, followed by vaginitis, &c. In labour, five years afterward, a callous cicatrix, of the thickness of the finger, nar-

rowed the pelvic outlet so as not to admit a half crown. After trial with a crotchet, the cicatrix was divided, and delivery was speedily accomplished, but the patient died.—*Ibid.*

Case LII.—Ætat. 28. The first labour was very tedinus, and she had a narrow recovery. The head was detained at the perineum for two hours, without advancing, the pains being strong and frequent, by a strong callous band, across the vagina. This was divided, and she was delivered in a few minutes of a living child. The incision caused no pain, and but a drop or two of blood was lost. She recovered favourably.—*Ibid.*

Case LIII.—Second child. She had been bled ℥xii., for rigidity of the os, and heat of the os and vagina. Under strong pains, the head descended enveloped in the uterus, and on reaching the os externum was thrown to the right side by a firm cicatrix, resulting from laceration in a previous labour. After six more pains, there being no relaxation of the cicatrix, the head advancing, and the os thrown toward the sacrum, she was placed on her feet, and bled "upwards of two quarts," until she fainted. She was safely delivered by forceps, a half hour afterward, of a living child, and recovered rapidly.—*Dewees' Midwifery.*

Case LIV.—When in labour sixteen hours, the pains being strong, the os externum scarcely admitting the finger, was close to the pubis, and distended. A bridle ran from the pubis to the perineum, opposing the passage of the head. Tobacco injections were twice tried, to no purpose. The bridle was then divided without apparent good. She was placed on her feet and bled, she became faint in the loss of ℥x. of blood; there was complete relaxation, and she was speedily delivered by forceps of a living child. Died on the sixth day, of cholera morbus.—*Ibid.*

Case LV.—Second child. When twelve or fourteen hours in labour, the head distending the perineum, the os externum was no larger than a finger ring, and thrown close up to the pubis. A cicatrix ran down to the verge of the anus. Strong pains for several hours, produced no impression upon it. She was strong and healthy; the pulse now strong, frequent, and hard. She was bled to ℥xl with some benefit. She was then placed erect, and ℥xxv to ℥xxx more taken. She fainted, and was soon delivered of a healthy child by forceps. She recovered well, and was delivered three years afterwards in the same way.—*Ibid.*

Case LVI.—Ætat. 43. A circular contraction from a previous labour. It was not divided, "for fear of increased laceration on the passage of the head." Forceps were applied, and a living child delivered, "apparently without much injury to the vagina."—*J. Ramsbotham's Midwifery*, p. 269.

Case LVII.—The os *externum* was a small opening, scarcely admitting the finger, the contraction having been caused by inflammation, after tedious labour. The head threatened to pass through the anus. When in labour about two days, the parts were divided in front and behind. The head was perforated, and she recovered well.—*Ibid.*, p. 315.

Case LVIII.—Second labour. The first was very protracted and instru-

mental. A circular cicatrix at the upper part of the vagina yielded a little, but another of a gristly nature surrounded the os *externum*, barely admitting the finger. The pains though powerful, were fruitless. The stricture was divided, and a living child delivered by the loog forceps. Recovery was rapid and perfect.—*Ingleby's Obstet. Med.*, p. 115.

Case LIX.—In her first labour she was delivered by forceps, and was supposed to have recovered. During pregnancy, the vagina was found to be nearly closed. At full term (Thursday night), after some hours, the os *externum* barely admitted the fore-finger, and within it, the vagina was closed by a membrane, which admitted only a probe. Through this foramen the waters were dribbling. Active pains ensued, on Saturday morning, the membrane was divided, and the arm felt in the vagina. The os externum was freely incised; much blood was lost, and she was delivered by version of a living child. She recovered well.—*Ibid.*

Case LX.—Was delivered by forceps, after a difficult labour; a stricture was found far up the vagina. It gave way under stroog pains, and delivery was natural.—*Ibid.*

Case LXI.—A healthy young woman. When labour had fairly set in, no os could be found, and the vagina was scarce two inches in depth. An opiate was given, and rest procured for some hours. An incision was then made toward the cervix, the os reached, and in two hours she was safely delivered. During childhood, the vagina had cohered above, leaving a passage for the menses, which, after impregnation, closed up.—*Dr. Hamilton.* See *Guy's Hosp. Reps.*, vol. iv. p. 123.

Case LXII.—(See case CLXII. of Cases of Ropture.) Firm bands obstructed the vagina—delivery natural after three days—*died*. A *rent* was found in the vagina, opposite the sacral promootory.

Case LXIII.—(See case CLXX. of same series.) A firm band obstructed the vagina—the bands were divided—rupture took place in the recto-vaginal septum, in an old cicatrix, four hoars afterward.*

Case LXIV.—Ætat. 28; robust; had bad two children, the first stillborn after severe labour, the second at the seventh month after an easy labour. Lahour came on April 2d hut went off entirely. It came on again on the 5th, at 2 A. M. On the 6th the womb ruptured, and she died on the 8th.

Post-mortem.—The womb was ruptured in front, transversely, just above the vagina. Vagina almost completely closed by a septum a half inch thick, and of very firm texture, with a small orifice, througb which a quill

* For a case of complete procidentin of the gravid uterus in parturition, treated by incision of the vagina, see *Brit. and For. Med. Rev.*, vol. vi. p. 235, from *Dr. Burdach*, in *Medicinische Zeitung*, 1837.

For a case of absence of external organs and delivery through an incision. in the direction of the vagina, seo *Lond. Lancet*, 1827–8, vol. i. p. 385, from *Arch. Gén.*, October 1827.

For another case of obstructed vagina, of which the result is not stated, see *Arch. Gén.*, vol. xv. p. 268.

of small size might be forced.—*Reported by Dr. Brainard*, in *Illinois Med. and Surg. Journ.*, May 1844. See *Meigs' Translat. of Colombat.*

Case LXV.—Ætat. 16 years; had congenital narrowness of the vagina, which would not admit a goose-quill. After eleven years, she conceived, at the fifth month. The vagina began to dilate, and continued to do so till she was brought to bed and safely delivered.—*Boyer*, in *Mém. de l'Acad. des Sci.*, 1774, in *Colombat*, p. 99.

Case LXVI.—Vagina so narrow as scarce to admit a quill. She became pregnant, and after three hours' labour gave birth to a large healthy child. The vagina dilated in one night.—*Ibid.*

Case LXVII.—Vagina found narrow, so as scarce to admit a quill. She was safely delivered.—From *Brazilian Med. Rev.*, in *Lancette Francaise, Gaz. des Hôpitaux*, in *Colombat*, p. 99.

Case LXVIII.—Ætat. 35, fourth confinement: full time. Called at 4 P. M. Waters escaped on the previous morning, and the pains commenced an hour after. Had procidentia uteri for a year, two or three inches being external. Cervix two or three inches without the vulva; firm, corrugated, and dry. At 4 A. M. next day, forceps applied, but the procidentia greatly increasing, were withdrawn, the tumour being eight inches long, and five in diameter. Soon after made an incision one and a half inches, and increased it one inch. Parts rent one and a half inches farther; child born alive; hemorrhage slight; substance of the cervix cartilaginous. Recovered.—*Amer. Jour. Med. Sci.*, Oct. 1846, *Dr. A. K. Gardner.*

Severe labour was the cause of most of the instances of contracted and obliterated vagina. It is distiactly stated in Cases XLII., XLV., XLVI., XLVIII., XLIX., L., LI., LII., LIII., LVI., LVII., LVIII., LIX., LX., LXIV., while it was probably the cause in some others. In Case XLVII. it arose from attempts to procure abortion; in Case LXI. from vaginitis during childhood; Case XLIV. was also a primipara; and, in Case LXV., the narrowness was congenital. In *Arch. Gén.*, vol. xviii. p. 471, Lisfranc reports a case of complete occlusion of the vagina, from neglected venereal ulcers.

Of those in which there was no active interference, in Cases XLIV. and LX. the obstructing bands were rent by force of the pains; in Cases LXV., LXVI., LXVII., the vagina dilated; and, in Case LVI., the patient was delivered by forceps. These all recovered. Cases L., LI., LIV., LV., yielded to venesection. Cases XLVII., LXII., LXIV., were let alone, and they died, as also Case XLVII., in which some attempt had been made to open the passage, but unsuccessfully, and rupture of the womb ensued. So that of the eight cases abandoned to nature, three were fatal.

Cases XLII., XLV., XLVI., XLVIII., XLIX., LI., LII., LVII., LVIII., LIX., LXI., in all twelve, recovered after incision of the obstructing membranes and tissues. Case LXIII. is the only instance of death after a

division of the obstacle, and in this case the rupture that caused the death occurred in an old cicatrix. The *four* cases attended by rupture of the uterus or vagina, show that that fearful accident is to be seriously apprehended when the impediment to delivery is allowed to continue.

If rupture of the womb is to be feared under the action of ordinary contractions, it certainly follows that the administration of ergot, with a view to overcome the obstacle by increased violence of the pains, is to be carefully avoided as hazardous in the extreme.

We have seen that in every instance but one, in which the stricture was divided, the woman recovered, while in several in which it was neglected, rupture of the womb or fatal exhaustion followed. Cases LXIV., LXV., LXVI., are remarkable exceptions, inasmuch as extreme contraction disappeared during labour and the delivery was natural. They show us what may, by possibility, happen; and yet the history of the other cases indicates that these are exceptions to a general rule.

Our cases show that while abandonment to nature is attended by great risks, division of the stricture by the knife is almost perfectly safe. Certain it is, that when the patient has been suffering during hours of agony, without any advance of the head, the artificial division, or spontaneous laceration of the opposing bands or cicatrices, has permitted almost immediate delivery.

Dewees recommends large abstractions of blood, and relates three instances in which it apparently proved successful. Hamilton also relates one, in which he practised the same. A truly formidable depletion was required in one at least, of Dewees', such as could not fail to peril the safety of almost any woman. We know of no other author who has recommended blood-letting to a similar extent.

The general safety of incisions, with the risk of dangerous laceration if left alone, must certainly encourage an early resort to the operation. It involves no important organs, is easy of performance, is attended by little pain, and almost always by only a trifling degree of hemorrhage, and is to be performed upon parts that must probably undergo spontaneous laceration before labour is completed.

These considerations point to the propriety of dividing the opposing structures, after a fair trial of relaxants, and before the powers of life have begun to yield from exhaustion, or the soft parts to suffer from long-continued pressure.

Dr. Ingleby advises that the incisions should be made during a pain. During convalescence, after a division of the stricture, the parts have a tendency to reunite, and this should be guarded against by appropriate management. So great is the risk of partial obliteration of the vagina from inflammation after severe labour, that Dr. Ingleby recommends an examination of the vagina in all instances of really difficult labour, within a month after delivery.